

REMARKS

The Office Action requires the election of a single disclosed species. Applicant asserts that the species restriction is ambiguous and confusing and fails to comply with the requirements of MPEP 806 et seq. regarding determination of the distinctness or independence of claimed inventions. Applicant respectfully requests withdrawal of the species restriction and consideration of all pending claims or, if appropriate, replacement with a proper restriction.

Pursuant to MPEP 806.04(e) "Claims are definitions of inventions. *Claims are never species.*" (Emphasis in original). Pages 2-3 of the Office Action appear to contravene such statement with a listing of Embodiments I to XII and claims allegedly "directed to" such Embodiments. Applicant asserts that the listing of claims "directed to" Embodiments I to XII does not constitute a proper identification of patentably distinct species. Page 2 of the Office Action provides a summary of the subject matter of independent claims 1, 13, 24, 34, 52, 59, and 64. However, the independent claim summaries do not appear to constitute a listing of species.

Accordingly, it is not possible for Applicant to deduce from the Office Action any identification of patentably distinct species properly defined pursuant to MPEP 806 et seq. Instead, the Office Action appears merely to list the subject matter of every independent claim and to assume that each independent claim constitutes a patentably distinct species. Such an assumption is clearly erroneous.

Page 2 of the Office Action lists the following characterization of independent claims:

1 - capacitor structure made without a rough silicon layer;

- 13 - nitride layer under the rough silicon layer;
- 24 - conductive rough silicon layer over a support surface;
- 34 - storage node in a substrate;
- 52 - method of forming a nitride layer over a surface supporting the capacitor construction;
- 59 - method of forming a storage node in a substrate; and
- 64 - method of forming a barrier layer at least over a storage node.

In the event that the Office intends the summary of independent claim subject matter to constitute description of patentably distinct species, though an erroneous listing, Applicant hereby elects with traverse the possible "species" drawn to a nitride layer under the rough silicon layer. Although it is unclear, perhaps the Office intends this possible "species" to correspond to Embodiment II. Applicant makes such election merely for the purpose of complying with the restriction requirement and without admitting to the propriety of the restriction. Applicant asserts that claims 1-78 read upon the elected species. Applicant traverses on the grounds that the restriction requirement is improper as discussed herein.

Claims 1-12, 52-58, 71, 72, 75 and 76 expressly set forth a nitride layer under a first electrode. Such claims read upon the elected species since the first electrode may include rough silicon, as set forth at least in claims 8 and 55. Applicant asserts that page 2 of the Office Action improperly characterizes the subject matter of claim 1 with the statement that it is "recited to a capacitor being made without a rough silicon layer."

Claims 13-33 expressly read upon the alleged species of a nitride layer under a rough silicon layer. Claims 34-41, 59-63, 73, 74, 77, and 78 set forth a first conductive layer

under a conductive polysilicon layer. Such claims read upon the elected species since the first conductive layer may include a nitride, as set forth at least in claims 35 and 60, and the polysilicon layer may include HSG silicon, a type of rough silicon, as set forth at least in claim 40. Claims 42-51 and 64-70 set forth a barrier layer under a polysilicon layer. Such claims read upon the elected species since the barrier layer may include a nitride, as set forth at least in claims 43 and 65, and the polysilicon layer may include HSG silicon, a type of rough silicon, as set forth at least in claims 48 and 70. At least for the reasons indicated herein, Applicant asserts that claims 1-78 read upon the elected species directed to a nitride layer under the rough silicon layer, apparently described by the Office Action as Embodiment II. Applicant requests consideration of claims 1-78 in the next Office Action.

In addition, Applicant notes that, pursuant to MPEP 806.04(f), claims to be restricted to different species must recite the mutually exclusive characteristics of such species. Page 2 of the Office Action states that claims 1-12 are different from claims 13-23. However, claims 1 and 13 are not mutually exclusive with regard to "a nitride layer under the rough silicon layer," contrary to the allegation on page 2 of the Office Action. Both claims encompass a nitride layer under a rough silicon layer.

Also, page 2 of the Office Action states that claims 24-33 are different from claims 34-51 since claim 24 sets forth a conductive rough silicon layer over a support surface and claim 34 sets forth a storage node in a substrate. However, the conductive polysilicon layer of claim 34 may include HSG silicon, a type of rough silicon, as set forth at least in claim 40, and claim 24 encompasses the support surface including a storage node since none of claims 24-33 preclude such a structure. Accordingly,

claims 24 and 34 are not mutually exclusive.


Independent method claims 52, 59, and 64 may be readily appreciated as similarly not mutually exclusive with regard to forming a nitride layer of a surface supporting the capacitor construction of claim 52, forming a storage node in the substrate of claim 59, and forming a barrier layer over the storage node of claim 64.

At least forth the reasons indicated herein, Applicant asserts that the listing is erroneous on pages 2-3 of the Office Action indicating claims directed to Embodiments I to XII to the extent that it alleges all of the claims readable upon each Embodiment. The error is clearly apparent given the Applicant's establishment herein that claims 1-78 read upon Embodiment II and also that the listed claims are not mutually exclusive.

At least for the reasons indicated herein, Applicant requests consideration of claims 1-78 in the next Office Action and withdrawal of the restriction.

Respectfully submitted,

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